

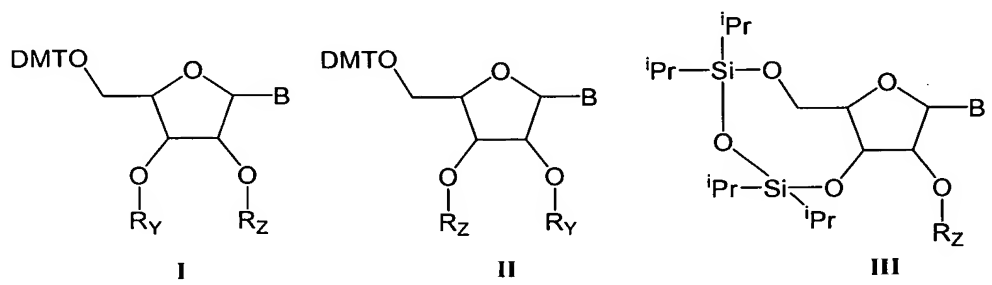
**AMENDMENT TO THE CLAIMS:**

This listing of claims replaces all prior versions and listings of claims in the instant patent application.

1-31 (canceled)

32 (currently amended). A compound that has formula I, II or III:

~~A method for detecting the presence or absence of an RNA in a biological sample suspected of containing said RNA comprising contacting said sample with a compound comprising a nucleoside comprising a ribofuranosyl sugar portion and a base portion, wherein said nucleoside bears at a 2' O position or a 3' O position a substituent having formula~~



wherein

B is a naturally occurring base, a protected naturally occurring base or a synthetic base;

DMTO is -O-dimethoxytrityl;

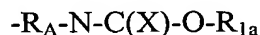
<sup>i</sup>Pr is isopropyl;

R<sub>Y</sub> is H, a hydroxy protecting group, a phosphate group, a phosphoramidite or L-ss;

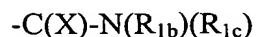
L is a linking group;

ss is a solid support medium;

R<sub>Z</sub> has the formula:



or



where:

$R_A$  is alkyl having from 1 to about 10 carbon atoms or  $(CH_2-CH_2-Q)_x$ ;

$R_{1a}$  is alkenyl having 2 to about 10 carbon atoms;

$R_{1b}$  and  $R_{1c}$ , independently, are H,  $R_2$ ,  $R_A$ , an amine protecting group or have formula  $R_A-N(R_{1d})(R_{1e})$ ,  $C(X)-R_2$ ,  $C(X)-R_A-R_2$ ,  $C(X)-Q-R_A-R_2$ , or  $C(X)-Q-R_2$ ;

$R_{1d}$  and  $R_{1e}$ , independently, are H,  $R_2$ ,  $R_A$ , an amine protecting group or have formula  $C(X)-R_2$ ,  $C(X)-R_A-R_2$ ,  $C(X)-Q-R_A-R_2$ , or  $C(X)-Q-R_2$ ;

$R_2$  is a steroid molecule, a reporter molecule, a lipophilic molecule, a reporter enzyme, a peptide, a protein, includes folic acid, or has formula  $-Q-(CH_2CH_2-Q)_x-R_3$ ;

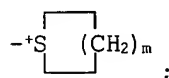
X is O or S;

each Q is, independently, is NH, O, or S;

x is 1 to about 200;

$R_3$  is H,  $R_A$ ,  $C(O)OH$ ,  $C(O)OR_A$ ,  $C(O)R_4$ ,  $R_A-N_3$ , or  $R_A-NH_2$ ;

$R_4$  is Cl, Br, I,  $SO_2R_5$  or has structure:



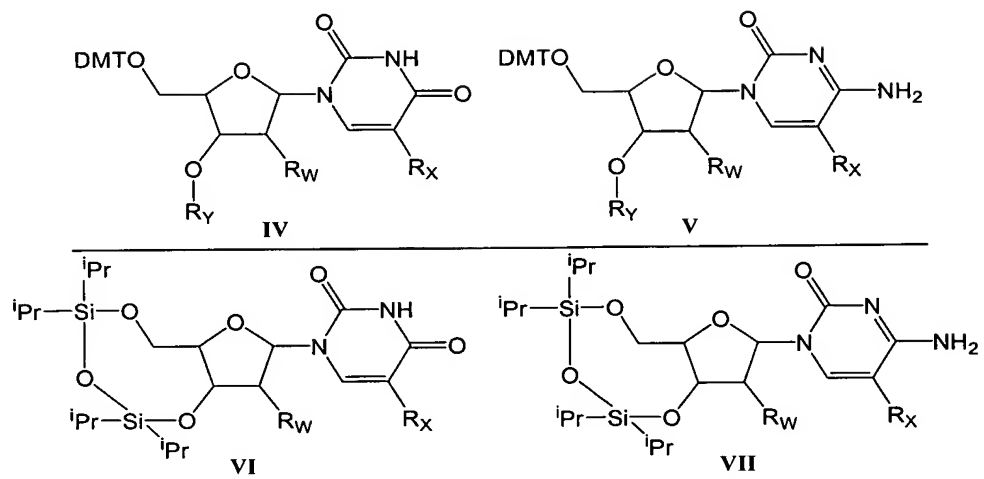
m is 2 to 7; and

$R_5$  alkyl having 1 to about 10 carbon atoms.

33 (canceled)

34 (currently amended). A compound that has formula IV, V, VI or VII:

~~A method for detecting the presence or absence of an RNA in a biological sample suspected of containing said RNA comprising contacting said sample with a compound comprising a nucleoside comprising a ribofuranosyl sugar portion and a pyrimidine base portion, wherein said base portion bears at its 5-position a substituent having formula:~~



wherein,

DMTO is -O-dimethoxytrityl;

iPr is isopropyl;

R<sub>W</sub> is H or O-R<sub>Y</sub>;

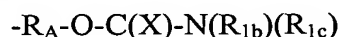
each R<sub>Y</sub> is independently H, a hydroxy protecting group, a phosphate group, a phosphoramidite or L-ss;

wherein if R<sub>W</sub> is O-R<sub>Y</sub> then at least one R<sub>Y</sub> is H or a hydroxy protecting group;

L is a linking group;

ss is a solid support medium;

R<sub>X</sub> has the formula:



where:

R<sub>A</sub> is alkyl having from 1 to about 10 carbon atoms or (CH<sub>2</sub>-CH<sub>2</sub>-Q)<sub>x</sub>;

R<sub>1b</sub> and R<sub>1c</sub>, independently, are H, R<sub>2</sub>, R<sub>A</sub>, an amine protecting group or have formula R<sub>A</sub>-N(R<sub>1d</sub>)(R<sub>1e</sub>), C(X)-R<sub>2</sub>, C(X)-R<sub>A</sub>-R<sub>2</sub>, C(X)-Q-R<sub>A</sub>-R<sub>2</sub>, or C(X)-Q-R<sub>2</sub>;

R<sub>1d</sub> and R<sub>1e</sub>, independently, are H, R<sub>2</sub>, R<sub>A</sub>, an amine protecting group or have formula C(X)-R<sub>2</sub>, C(X)-R<sub>A</sub>-R<sub>2</sub>, C(X)-Q-R<sub>A</sub>-R<sub>2</sub>, or C(X)-Q-R<sub>2</sub>;

R<sub>2</sub> is a steroid molecule, a reporter molecule, a lipophilic molecule, a reporter enzyme, a peptide, a protein, includes folic acid, or has formula -Q-(CH<sub>2</sub>CH<sub>2</sub>-Q)<sub>x</sub>-R<sub>3</sub>;

X is O or S;

DOCKET NO: ISIS-5239

SERIAL NO: 10/628,043

Response to Office Action Dated: April 15, 2005

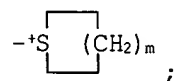
PATENT

each Q is, independently, is NH, O, or S;

x is 1 to about 200;

R<sub>3</sub> is H, R<sub>A</sub>, C(O)OH, C(O)OR<sub>A</sub>, C(O)R<sub>4</sub>, R<sub>A</sub>-N<sub>3</sub>, or R<sub>A</sub>-NH<sub>2</sub>;

R<sub>4</sub> is Cl, Br, I, SO<sub>2</sub>R<sub>5</sub> or has structure:



m is 2 to 7; and

R<sub>5</sub> alkyl having 1 to about 10 carbon atoms.